

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) A catalyst support for selective gas phase reactions in a tubular fixed bed reactor comprising a metallic monolith having channels the walls of which are adapted to receive a catalytically active phase or an intermediate layer acting as a carrier for a catalytically active phase.
2. (Original) A catalyst support according to claim 1 wherein the channels are substantially parallel to the longitudinal axis of the monolith.
3. (Currently amended) A catalyst support according to claim 1 [or 2] wherein the perpendicular cross section of each channel forms a cell delimited by a closed line represented by the perimeter of the cross section of the channel walls.
4. (Currently amended) A catalyst support according to [any of claims] claim 1 [to 3] wherein the shape of each cell perimeter is regular.
5. (Original) A catalyst support according to claim 4, wherein said shape is square, triangular, hexagonal, or circular.
6. (Currently amended) A catalyst support according to [any of claims] claim 1 [to 3] wherein the shape of each cell perimeter is irregular.
7. (Currently amended) A catalyst support according to [any of claims] claim 1 [to 6], wherein the cell density is at least 3 cells/cm².
8. (Original) A catalyst support as claimed in claim 7 wherein the cell density is between 8 and 100 cells/cm².

9. (Currently amended) A catalyst support according to [any of claims] claim 1 [to 8] wherein the size of the cells is less than 5 mm.
10. (Original) A catalyst support according to claim 9 in which the size of the cells is between 1 and 3 mms.
11. (Currently amended) A catalyst support according to [any of claims] claim 1 [to 10] wherein the volume fraction of the metallic support is less than 0.9.
12. (Original) A catalyst support according to claim 11 wherein the volume fraction of the metallic support is between 0.15 and 0.6.
13. (Currently amended) A catalyst support according to [any of claims] claim 1 [to 12] wherein the surface area per unit volume of the monolith is at least $6 \text{ cm}^2/\text{cm}^3$.
14. (Original) A catalyst support according to claim 13 wherein the surface area per unit volume of the monolith is at least $10 \text{ cm}^2/\text{cm}^3$.
15. (Currently amended) A catalyst support according to [any of claims] claim 1 [to 14] wherein the length of the monolith is at least 5 cms.
16. (Original) A catalyst support according to claim 15 wherein the length of the monolith is in the range 30 cms to 1 m.
17. (Currently amended) A catalyst support according to [any of claims] claim 1 [to 16] wherein the metallic structure formed by the channel walls of the monolith is continuous.
18. (Currently amended) A catalyst support according to [any of claims] claim 1 [to 17] made of a metal [chosen from] selected from the group consisting of copper, aluminum, nickel and alloys thereof.

19. (Currently amended) A catalyst support according to [any of claims] claim 1 [to 17] made of an alloy comprising predominantly iron, chromium, and aluminum.
20. (Currently amended) A catalyst support according to [any of claims] claim 1 [to 19] wherein the surface of the monolith is covered by an intermediate layer acting as a carrier for a catalytically active compound.
21. (Currently amended) A catalyst support according to claim 20, wherein the intermediate layer is made of material selected from the group consisting of aluminum hydroxides, aluminum oxide-hydroxides, alumina, silica, zirconia, titania, magnesia, pumice, diatomaceous earth zeolites and their mixtures.
22. (Currently amended) Process for making a catalyst support according to [any of claims] claim 1 [to 21] comprising extrusion of metals or metallic powders, folding and/or stacking metallic foils or sheets.
23. (Currently amended) Process for making a catalyst support according to [any of claims] claim 1 [to 22] wherein the intermediate layer is deposited on the surface of the monolith by a washcoating technique.
24. (Currently amended) A catalyst comprising a catalyst support according to [any of claims] claim 1 [to 21] and catalytically active material deposited on the walls of the channels, optionally with said intermediate layer.
25. (Original) A tubular reactor filled with a catalyst according to claim 24, wherein the walls of the monoliths are in contact with the wall of the reactor.
26. (Currently amended) [Use of a catalyst according to claim 24 for a selective gas-phase exothermic reaction] A method for selectively reacting reagents in a gas phase exothermic reaction comprising reacting said reagents in a tubular fixed bed reactor comprising a

metallic monolith having channels the walls of which are adapted to receive a catalytically active phase or an intermediate layer acting as a carrier for a catalytically active phase.

27. (Currently amended) [Use according to] The method of claim 26, wherein the gas phase exothermic reaction is the selective chlorination and/or oxychlorination of alkenes or alkanes or the selective oxidation of alkenes.
28. (Currently amended) [Use according to] The method of claim 27, wherein the reaction is selected from the group consisting of the conversion of ethylene with chlorine to 1,2-dichloroethane, the conversion of ethylene with hydrogen chloride with air or oxygen to give 1,2-dichloroethane, the conversion of ethane with hydrogen chloride with air or oxygen to give a saturated or unsaturated chlorinated hydrocarbon, [preferably 1,2-dichloroethane or vinyl chloride;] and the reaction of methane with chlorine.
29. (Currently amended) [Use according to] The method of claim 27 [or 28] wherein the catalyst for the oxychlorination reaction of ethylene contains copper in an amount of 1 to 12 wt % of the intermediate layer.
30. (Currently amended) [Use according to] The method of claim 29, wherein the catalyst also comprises at least one alkali metal, alkaline earth metal, group IIB metal or lanthanide in a total amount up to 6 wt % of the intermediate layer.
31. (Currently amended) [Use according to] The method of claim 27 [or 28] wherein the catalyst for the oxychlorination reaction of ethane contains in the intermediate layer copper and an alkali metal in the atomic ratio 2:8.
32. (Currently amended) [Use according to] The method of claim 31, wherein the catalyst also comprises at least one alkaline earth metal, group IIB metal or lanthanide.

33. (Currently amended) [Use according to] The method of claim 27, wherein the catalyst for the selective oxidation reaction of ethylene comprises at least silver, and at least one alkali and/or alkaline earth metal.

34. (Currently amended) [Use of a catalyst according to claim 24 for a selective gas-phase endothermic reaction.] A method for selectively reacting reagents in a gas phase endothermic reaction comprising reacting said reagents in a tubular fixed bed reactor comprising a metallic monolith having channels the walls of which are adapted to receive a catalytically active phase or an intermediate layer acting as a carrier for a catalytically active phase.

35. (Newly added) The method of claim 28 wherein the conversion of ethane with hydrogen chloride with air or oxygen produces 1,2-dichloroethane.

36. (Newly added) The method of claim 28 wherein the conversion of ethane with hydrogen chloride with air or oxygen produces vinyl chloride.